

DEPARTMENT OF THE INTERIOR
DEPARTMENTAL MANUAL

Museum Property Handbook
(411 DM, Volume I)

Chapter 10 Conservation Treatment

A. INTRODUCTION

The primary goal of the conservation of museum property is to preserve its historic, scientific, or aesthetic qualities, as embodied in surviving features of composition, structure, form, appearance, or workmanship. This emphasis on preservation follows from the recognition of museum property as a "primary basis" for archeological, historical, and scientific research, or as the means of experiencing authentic, firsthand contact with the events and people commemorated by a unit.

Conservation treatment is the interventive ("hands-on") work of preserving or stabilizing museum property, and usually requires the services of a conservator who is trained and experienced in dealing with the problems of a particular class of objects (e.g., paintings, textiles, furniture, photographs, books, ethnographic objects, or natural history specimens). All conservation treatment must be carried out in accordance to the principles and practices specified in the Code of Ethics and Standards of Practice of the American Institute for Conservation of Historic and Artistic Works. Refer to Appendix C for a description of this code of ethics.

1. Preservation and Restoration Treatment

Conservation of museum property is an ongoing process of preventive conservation supplemented by conservation treatment when necessary. In this context, stabilization treatment is indicated under the following circumstances:

a. When Preventive Measures are Not Enough

When preventive measures, such as good environmental conditions and proper handling, are not enough to reduce the rate of deterioration to a tolerable level, and there is a satisfactory treatment available to prolong the life of the object. An example is the deacidification of wood pulp paper. Industrialized paper making produces paper high in acid content, and this has resulted in the rapid deterioration of books, documents, and other paper objects, even in good environmental conditions.

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Several treatment techniques involving deacidification have been developed.

b. When the Object is in Danger

When deterioration has proceeded to a point where the object is extremely fragile and in danger under any circumstances, and a satisfactory treatment is available to increase its stability or durability. For example, loose paint flakes may need only the slightest touch to fall and be lost from a painting. Therefore, treatment is needed.

c. When Necessary for Exhibit Needs or Increased Handling

When research needs, conditions requiring corrective work such as cleaning, reassembly of broken parts, or the object needs a greater degree of physical stability to allow more handling or permit it to be exhibited satisfactorily. For example, a flag may need special support to be exhibited vertically, or a metal artifact recovered from an archeological site may need cleaning to reveal important markings.

In addition to preventive care and stabilization treatment, some amount of restoration may be desirable to permit an object to be better understood or appreciated. Restoration usually means removing additions which are not considered historically important, replacing missing parts, "renewing" finishes, concealing damages, and so on. Ethical considerations call for restoration treatment to be the minimum necessary, fully documented, and without fraudulent intent.

2. Minimum Treatment Necessary

Once the need for treatment and the goals of treatment are clearly established, a preservation-oriented policy is to keep interventive treatment to a minimum. "Minimal intervention" is the treatment strategy of doing the least possible to the object that in any way alters its significant characteristics. The goal is to reduce the

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possibility that the treatment itself will in some way compromise the valuable aspects of the object or eventually result in more rapid deterioration.

Conservators are aware of the fact that previous efforts at repair, restoration, and stabilization often have been detrimental to the long-term preservation of museum objects. In many cases, no treatment at all would have been better. Many treatment materials and techniques have not stood the test of time, and objects not yet in collections were cared for with no thought to long-term preservation needs. As a consequence, significant features of objects have been sacrificed or altered permanently. Later it is realized that something important has been lost, or that future preservation has been made more difficult and uncertain.

With any interventive treatment, even when preservation is the goal, there is a chance that information will be destroyed or the object may be altered so as to decrease its long-term value in unforeseen ways. Objects are often re-evaluated by succeeding generations. Also objects may provide new information as research techniques improve.

With a "minimal intervention" approach to treatment, an object's exhibit or storage circumstances are also considered. In this way, it is sometimes possible to avoid interventive treatment entirely. For example, a change in the way an object is supported, or some modification in its immediate environment, may be sufficient to stabilize its condition or make it safe to exhibit. The underlying problem is that treatment processes may not be completely reversible. Cleaning, for example, cannot be undone. Conversely, the oils, resins, gums, and waxes introduced into objects may be only partially removable later on, and may present an obstacle to new treatment processes which have become "state-of-the-art."

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B. FACTORS TO CONSIDER BEFORE TREATMENT

1. Guidelines for Preservation Treatment

Weight the following factors when considering what constitutes appropriate treatment for museum property:

a. Museum Property Documenting Evidence of Manufacture and Use

Objects may give clues to various kinds of information indicating how they were made and used. In addition to an object's design features and its composition, there may be evidence relating to the sources and processing of its raw materials, as well as fabrication or manufacturing techniques. Other evidence may include accretions, signs of wear, and repairs or alterations.

Unit staff should alert the conservator when dealing with objects of this kind.

b. Museum Property Having Functional Capability

Some objects are collected and preserved because of their function. For example, the capacity to produce musical sounds of a particular quality may be what makes a certain musical instrument important in a collection, and this will guide the choice of treatment. It is important to realize that the preservation of functional capability may require replacement of worn out or defective original parts. Parts wear out when objects are in working condition and are used. Answer the question: Does preservation of function take precedence over preservation of the original "fabric" or material?

c. Museum Property Having Scientific Research Value

There are large numbers of objects in archeological, ethnographic, natural history, and history collections that are preserved for a variety of

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research and study purposes. Since the full research value of an object may not be known, and any alteration (e.g., cleaning) may destroy data, appropriate treatment will mean minimal intervention, if any treatment can be justified at all.

d. Culturally Sensitive Objects

Some museum property may be considered significant by specific cultural groups (e.g., Native Americans). Modern conservation treatment may not be appropriate for these objects since, from the point of view of the cultural group in question, treatment may have an adverse effect on value or potential function of the object. There also may be a concern about who performs the treatment: a member of the community or an outsider.

Unit staff need to identify the culturally relevant group for all cultural objects. A qualified ethnographer should be consulted to help identify relevant groups, materials, community consultants, and questions to be raised. Consultation with representatives of these cultural groups should be sought to identify significant objects and determine appropriate treatments. When in doubt, interventive treatment should be kept to a minimum, in a context of adequate preventive measures, until more is known about the objects.

e. Importance of Appearance

For many objects, appearance is a high priority in conservation treatment. This is true not only for artwork, which is valued for aesthetic reasons, but also for many other objects. For exhibits, most objects receive some "grooming" to make them more presentable.

Intact, relatively stable objects may be treated fairly successfully. Problems arise with the many objects whose appearances are transitory, due to the inherent instability of their constituent materials,

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or are substantially changed because of use, abuse, neglect, or subsequent repairs. The original or historically important appearance may have been lost. Answer the following questions: What does it mean to restore the former appearance of such objects? When does this effort become fraudulent and unethical for a museum object? Refer to Appendix C.

During the examination prior to treatment, the conservator will try to ascertain the condition of the constituent materials of an object and to what extent, if any, an object's original visual features are still present, though perhaps hidden under grime or extraneous additions. After the examination, the conservator must discuss the extent and character of any proposed restoration with the curatorial staff.

2. Guidelines for Restoration Treatment

The following guidelines are to be used in making decisions about restoration treatment:

- a. Restoration of an object is based on sufficient data with a minimum of conjecture.
- b. Restoration should not modify the known original character of an object.
- c. Restoration is minimally interventive. Restoration techniques and materials that least modify the original object should be chosen; and materials used should be the most completely removable at a later time with minimum effect or harm to an object.
- d. Restored areas of an object should be distinguishable from original material, although they need not be conspicuous. Restored areas need to be fully documented in an object's treatment report.
- e. Restoration of an object needs to take into account the possible importance of preserving signs of wear, damage, former maintenance, or other historic or scientific evidence.

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- f. Wear, breakage, discoloration, and other deterioration do not necessarily affect the value of original material. When deteriorated original material is perceived to impede satisfactory restoration, the curatorial staff should ensure that the irreversible alteration or destruction of such material will not diminish the historical or scientific value of the object.
- g. Restoration should not mislead the visitor. Without expert guidance, restored areas of an object may be confused with original areas. Restoration, even if accurate in a general way, may be inaccurate in its details. Extensive restoration may overshadow evidence revealed by the object about original technology, materials, and fabrication skills. These may be among the object's most important features.

C. DOCUMENTATION OF CONSERVATION TREATMENT

Documentation must be applied to treatments carried out by conservators and to any care administered by museum property staff.

1. Importance of Documentation

- a. It provides the curatorial staff with information on the condition of the object, how its original state has been altered, and what is original fabric and what is old restoration.
- b. It serves as a permanent record of the treatment procedures performed and the materials and methods used.
- c. It spells out the understanding reached between the unit staff and the conservator on the scope of work, including the extent and type of any stabilization or restoration treatment.
- d. It makes possible the assessment of the success or failure of treatment methods and materials over a

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long period of time. It provides information which will help future conservators in assessing an object's condition and devising further treatment.

- e. In some instances, it may last longer than the object itself and may become the only remaining record along with the catalog record and accession documents.

2. Methods of Documentation

Standard treatment documentation includes written reports, photographs, and, when needed, drawings and illustrations. There is no standard format for conservation treatment reports. Both checklist and narrative essay report types are used by conservators. A bureau's conservation treatment policy should follow the guidelines for documentation presented in the Standards for Practice of the American Institute for Conservation (AIC). Refer to Appendix C.

Detailed photographs depict the object's problems and the treatment steps being undertaken. A complete series includes photographs taken before, during, and after treatment. Drawings and illustrations and standardized Condition Reports, are useful for noting changes or significant features not adequately illustrated in photographs alone (e.g., repairs, salvage edges, or changes in sewing threads in textile objects).

Conservation documentation includes three types of reports: an examination report, a treatment proposal, and a treatment report. Refer to Appendix H for a discussion and sample of each type of report.

D. OBTAINING THE SERVICES OF A CONSERVATOR

1. General Considerations

a. Conservation Planning

Except for emergency situations, conservation treatment for objects in a collection should be planned.

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A long-term program for the treatment of objects should be based on a Conservation Survey. Refer to Chapter 4 for guidance on Conservation Surveys.

b. Conservation Risk

There is an inherent risk in conservation treatment. No conservator will or can guarantee the final outcome.

c. Conservation Ethics

All professional actions of a conservator must be governed by total respect for the physical, historic, and esthetic integrity of an object. As stated in the Code of Ethics and Standards of Practice (AIC), conservators have special responsibilities to museum property.

1) **Suitability of Treatment**

The conservator should not perform or recommend any treatment that is not appropriate to the preservation of the object. Regardless of the object's value or quality, the conservator should adhere to the highest and most exacting standard of treatment.

Techniques and materials that least affect the object and that can most easily and completely be reversed always should be selected. An improvement in conditions of display, storage, or use may often be preferable to physical intervention. Nothing should be removed from an object without sufficient evidence that it is not original to the object or important to its history.

Restoration should be the minimum necessary. It is unethical to modify or conceal the true nature of an object through restoration. The presence and extent of restoration should be

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detectable, though it need not be conspicuous. All restoration needs to be fully documented.

2) **Examination and Records**

Before carrying out any treatment, the conservator should first make an adequate examination of the object and all available documentation in order to record its condition and history, and to establish the causes of its deterioration. A record of treatment methods and materials used should be kept as a permanent, accessible archive and filed in the catalog folder.

3) **Recognition of Limitations**

Conservation and investigation should be undertaken only within the limits of the conservator's professional competence and facilities. Moreover, it is the responsibility of the conservator to keep up with current knowledge and to continue to develop skills so as to give the best treatment available.

4) **Post-Treatment Care**

It is the duty of the conservator at all appropriate times to provide recommendations to the curatorial staff on the subsequent care of a conserved object concerning its handling and conditions of storage and display.

5) **Delegating and Subcontracting**

If the conservator delegates work on objects, he or she is directly responsible for the work. This includes work delegated to trainees, volunteers, subordinates, or outside agencies. **Work should not be**

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delegated or subcontracted unless the conservator can directly oversee the work, or has sufficient knowledge of the agent.

d. Role of Conservator

In most circumstances, conservators are not curators or appraisers and should not be asked to perform those functions.

e. Team Work

Mutual understanding and respect for the responsibilities and expertise of unit managers, unit museum property staff, and conservators are essential to a successful contractual relationship.

f. Quality of Conservation Treatment

The type and quality of conservation treatment an object receives is critical. Be prepared to take time to locate conservators and to select a well-qualified one.

2. Locating and Selecting a Conservator

Since circumstances will vary with each project, unit staffs should take into account the following factors in the process of locating and selecting conservators.

a. Appropriateness of Particular Individuals or Laboratories

- 1) The conservator should have knowledge and experience in treating the kinds of objects requiring treatment and in using specialized techniques and equipment when needed.
- 2) Some treatments may require facilities or equipment beyond those available in some labs.
- 3) Objects sometimes need treatment by two or more

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specialists. To limit handling and shipping of objects it is best then to arrange for treatment at a lab where the required specialists can work together, rather than moving an object to several conservators in different locations with the possible risk of damage in transit.

b. Transportability of the Object

- 1) Some objects are too big or too fragile to be moved; therefore, treatment should be conducted on site. When treatment occurs on site, additional security measures may be needed. Objects which are treated on site should not be in close proximity to other museum property projects.
- 2) Other objects may be transportable, but may be limited by economy or convenience. Unit staffs may wish, for example, to have significant or valuable objects treated on site or nearby.
- 3) Some objects should not travel outside the climatic region to which they have adapted. For example, some furniture from an arid region may be best treated in the same area, rather than being shipped to a more humid zone for treatment, then back to the dry conditions.

c. Curatorial Staff and Conservator Dialogue

All treatments require much discussion between unit staff and the conservator to establish treatment goals and whenever decisions need to be made on the nature and extent of treatment. No bureau can or should surrender its authority to make decisions that concern the treatment of its objects. Curatorial staff should review treatment proposals before any work begins and, during treatment, and review any deviations from proposals.

For example, the unit staff may need to discuss the work at several intermediate stages and give approval

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of results before the conservator proceeds to the next phase of the treatment. To facilitate this dialogue, the work may need to be performed on site or in a nearby conservation laboratory.

d. Funding Needs due to Geography

Units are often at some distance from the location of practicing conservators. Units may need to program funds for conservators to travel to the site for treatment or packing and shipping objects to another location for treatment.

E. ACQUISITION OF CONSERVATION SERVICES

1. Introduction of Participants

Contracting for services is governed by the Federal Acquisition Regulation (FAR) and the Department of the Interior Acquisition Regulation (DIAR). Important participants in the contracting process are:

- # **Contracting Officer (CO)**
- # **Contracting Officer's Representative (COR)**
- # **Contracting Officer's Technical Representative (COTR)**

The Contracting Officer is delegated actual authority by the government to enter into and administer contracts (e.g., to commit the Federal government to pay for products and services). The **CO** can make informed decisions about conservation services if given adequate information about the nature of the work by the museum property staff or the conservator most directly involved.

In contracts of some complexity, a federal employee, acting as the Contracting Officer's Representative (**COR**), may be designated to work with the **CO**. The Contracting Officer's Technical Representative(s) (**COTR**), who is also a federal employee, provides the **COR** (or **CO** depending on the contract) advice on the technical aspects of the work being contracted. The **COTR** needs to be knowledgeable

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about the use and conservation needs of the subject museum property.

2. Steps in the Acquisition of Conservation Services

This process is a coordinated effort between the Contracting Officer and the Contracting Officer's Technical Representative.

a. Information Needed by the Contracting Officer

The **COTR** needs to provide the **CO** with the following information:

- 1) A list of potential conservators in the desired specialty (e.g., paintings, paper, or textiles) for the project. Contact the American Institute of Conservation for a directory of conservators. Refer to Appendix B for information about this organization.
- 2) A background statement that includes a description of the unit, the unit's museum property collection, and the specific conservation treatment project.
- 3) A Scope of Work Statement that includes a description of the conservation treatment required and the desired qualifying specifications. Qualifying specifications include the reason for treatment (e.g., storage, exhibit, or traveling exhibit), desired result of the treatment, insurance coverage for object(s), and facility security. The scope of work includes completion dates; the stated requirement that all work must be carried out in accordance with the Code of Ethics and Standards of Practice of the American Institute for Conservation (AIC); and the stated requirement that full treatment reports with accompanying photographs need to be provided upon completion of the work. An example of a Scope of Work Statement is included in

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Appendix H.

b. Solicitation Prepared by the Contracting Officer

Based on the scope of work statement, the **CO** must require in the solicitation that each conservator includes the following information in their proposal.

NOTE: This proposal is not a detailed condition report or treatment proposal, since at this point the conservator has not examined the object.

- 1) A current resume that indicates education and experience in conservation treatment and provides references. This part of the proposal includes resumes of all persons who will assist in this project.
- 2) Description of approach to the general treatment process for each object type. This description should be relevant to the requested project and should include commonly used methods, techniques, materials, and expected results.
- 3) Evidence of past experience in comparable areas of treatment (e.g., sample treatment reports and photographs) appropriate to work described in the Scope of Work Statement.
- 4) Statement indicating technical capacity to accomplish the work required (e.g., facilities and equipment) and of ability to meet required dates of completion.
- 5) Statement describing proposed methods of transportation (e.g., methods of packing and shipping), security of facility where work will be accomplished, and insurance coverage.

c. Evaluation of Proposals Submitted by Conservators

Technical proposals are submitted to the Contracting Officer. A technical evaluation panel assists the Contracting Officer in evaluating each proposal. The

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CO will ask the **COTR** to submit a list of individuals who can serve on the panel. The professional panel should be composed of individuals related to the museum profession (e.g., bureau museum property staff, unit museum property staff, and/or consulting museum professionals). The **CO** will ask the **COTR** for suggestions for criteria in addition to those listed under E.2.b. These criteria are then used by the panel to review each submitted technical proposal.

Each proposal is reviewed and evaluated based on pre-determined weighted factors assigned to criteria.

d. After the Contract has been Awarded

The contract must require the conservator to submit a detailed examination report and treatment proposal. After the contract has been awarded, the **COTR** needs to review and approve a detailed Examination Report and Treatment Proposal for each object, or as appropriate, groups of objects that are to receive conservation treatment. Refer to Appendix H for examples of an Examination Report and Treatment Proposal. This step will require the conservator to examine in detail all of the objects. The treatment proposal should provide a firm cost for all conservation treatment work.

The submitted Examination Report and Treatment Proposal are reviewed and approved by the **COTR** for the project. The **COTR** may consult bureau museum property staff or consulting curators or conservators about the proposal.

Once the treatment proposal has been approved by the **COTR** and the **CO** has provided authorization, the conservator can begin the treatment of the object(s). Depending on the nature and difficulty of treatment, the **COTR** and conservator should schedule periodic conversations about the treatment process. No changes in treatment are to be made by the conservator without approval in writing of the **COTR** through the **CO**.

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e. Completion of the Work

Upon final completion and acceptance of the work by the **COTR** and return of all objects and receipt of the needed treatment documentation, including the Treatment Report, full and final payment is authorized.

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